

REMARKS

In claim 1, new step a) is supported by the specification as originally filed at page 14 lines 19-20, page 11 lines 12-14, page 13 1-7, and page 15 lines 5-11. Support for the amended step (b) is found at page 13 lines 1-7. Support for new step (f) is found at page 6, line 27 to page 7, line 3.

Support for the amendment of claim 5 may be found in the original specification at page 22 lines 2-5.

Support for new claim 22 is found in the specification as originally filed at page 15 lines 5-11, particularly line 10.

Support for new claim 23 is found in the original specification at page 14 lines 19-24.

Support for new claim 24 is as for the amended claim 1. Further support for step b) may be found in the original specification at page 15 lines 22-25.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

I. The Restriction Requirement

Claims 10, 15, 17-19 and 21 are withdrawn in response to the restriction requirement.

II. The Rejection of the Claims under 35 U.S.C. 112 second paragraph

The claims are rejected under 35 U.S.C. 112, second paragraph.

Claim 1 stands rejected because of insufficient antecedent basis for the limitation "the cloned genes." Claim 1 is rewritten without the use of this phrase.

Claim 5 stands rejected because of insufficient antecedent basis for the limitation "the supernatant obtained from cultivating positive clones." Claim 5 is rewritten in order to provide proper antecedent basis.

Claim 7 stands rejected because of insufficient antecedent basis for the limitation "the donor strain." The claim is amended to avoid this phrase.

Claim 11 stands rejected because of insufficient antecedent basis for the limitation "wherein the preparation of a gene library of step (b)." The claim is rewritten to avoid this phrase.

Claim 1 stands rejected as being incomplete for omitting essential steps because the claim is drawn to "screening for compounds secreted by an organism", but the claimed method

would result in identifying clones, not compounds. New step e) is added to claim 1 in order to specify the identification of the compounds.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

III. The Rejections of the Claims under 35 U.S.C. 102(b) over Rehman et al.

The claims are rejected under 35 U.S.C. 102(b) as being anticipated by Rehman et al. This rejection is respectfully traversed.

Claim 1, as currently amended, is amended to clarify that the invention is directed to a method for screening for compounds secreted by a microorganism. In contrast, Rehman et al. relates to proteins from the gut of the nematode *H. contortus*.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 102(b). Applicants respectfully request reconsideration and withdrawal of the rejection.

IV. The Rejection of the Claims under 35 U.S.C. 102(b) over Torkkeli et al.

The claims are rejected under 35 U.S.C. 102(b) as being unpatentable in view of Torkkeli et al. This rejection is respectfully traversed.

Claim 1, as currently amended, specifies that a mixture of antibodies is raised against least two secreted compounds, and these antibodies are then subsequently used to screen for expression of said proteins.

In contrast, in Torkkeli et al., the antibodies are raised against a single, isolated protein *H. ersinae* glucoamylase P, and knowledge about the isolated protein is required. Thus, in Torkkeli et al., polyclonal antibodies were raised against purified *H. ersinae* glucoamylase P (col. 20 lines 51-54), which is not "at least two secreted compounds."

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 102(b). Applicants respectfully request reconsideration and withdrawal of the rejection.

V. The Rejection of the Claims under 35 U.S.C. 102(b) over Stevens et al.

The claims are rejected under 35 U.S.C. 102(b) as being unpatentable in view of Stevens et al. This rejection is respectfully traversed.

Claim 1, as currently amended, specifies that a mixture of antibodies is raised against least two secreted compounds, and these antibodies are then subsequently used to screen for expression of said proteins.

In contrast, in Stevens et al., the antibodies are raised against a single, isolated protein human secretory granule proteoglycan peptide core protein, and knowledge about the isolated protein is required. Thus, in Stevens et al, polyclonal antibodies were raised against human secretory granule proteoglycan peptide core protein (col. 25 lines 10-18), which is not "at least two secreted compounds."

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 102(b). Applicants respectfully request reconsideration and withdrawal of the rejection.

VI. The Rejection of the Claims under 35 U.S.C. 103 over Borchert et al. and Torkkeli et al.

The claims are rejected under 35 U.S.C. 103 as being unpatentable over Borchert et al. in view of Torkkeli et al. This rejection is respectfully traversed.

Claim 1 specifies that antibodies are raised against at least two secreted compounds. As described above, the method disclosed by Torkkeli et al. involves raising antibodies against a single isolated protein, and the reference relies on knowledge about the isolated protein. A combination of Borchert et al. and Torkkeli et al. would therefore not lead to the invention as presently claimed, as Borchert et al. does not motivate one skilled in the art to modify the teachings of Torkkeli et al.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

VI. The Rejection of the Claims under 35 U.S.C. 103 over Borchert et al. and Rehman et al.

The claims are rejected under 35 U.S.C. 103 as being unpatentable over Borchert et al. in view Rehman et al. This rejection is respectfully traversed.

Borchert et al teaches a method of generating variant polypeptides which are then screened or selected for a desired property. The reference teaches that

The screening of the library or the selection of the variants depends on the specific polypeptide and which properties thereof it is desired to improve and/or retain. It is therefore necessary to set up a screening protocol for each case. (col. 3 l. 45-48).

Rehman et al. is directed to analysis of membrane and secreted antigens from the nematode *H. Contortus*, and it does not suggest screening for a specific polypeptide and specific

properties. Thus, a skilled artisan would not be motivated to combine Borchert et al. with Rehman et al. in the manner asserted by the Examiner.

Moreover, Rehman et al. is also clearly non-analogous art to the claimed invention. In order for a reference to be analogous art, the reference must either be in the field of Applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor(s) was/were concerned. *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Rehman et al. is not within the field of the Applicant's endeavor as the present invention is directed to screening of enzyme in microorganisms whereas Rehman et al. is directed to tissue specific analysis of nematodes. Rehman et al. is also not pertinent to the particular problem with which the present invention is directed as the present invention is directed to providing a new method for screening for secreted proteins from microorganisms, whereas Rehman et al. is directed to the isolation of membrane and secreted proteins from the gut of a parasitic nematode to investigate the biology of the gut of the nematode.


For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

VI. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

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